

WHAT IS CLAIMED IS:

1. A process for continuous coagulation and drying of rubber latex, comprising passing a stream of the latex through a coagulator to form a coagulated rubber stream, introducing the coagulated rubber stream from the coagulator into a dryer downstream of the coagulator, and passing the coagulated rubber stream through the dryer to dry the rubber, in which the latex stream in the coagulator is heated by a combination of microwave energy and hot air.

2. A process as claimed in claim 1,  
wherein a coagulation temperature in the coagulator is in the range from 30°C to 90°C.

3. A process as claimed in claim 1,  
wherein the latex stream entering the coagulator has a thickness in the range from 1.0mm to 15.0mm.

4. A process as claimed in claim 1,  
wherein the coagulated rubber in the dryer is heated by a combination of microwave energy and hot air.

5. A process as claimed in claim 4,  
wherein the rubber is dried to a moisture content of less than 1.5%.

6. A process as claimed in claim 1,

wherein the latex stream speeds, rubber temperatures and microwave energy consumption are computer-controlled.

7. A process as claimed in claim 1,

further including stretching the coagulated rubber stream passing between the coagulator and the dryer.

8. A process as claimed in claim 7,

wherein the coagulated rubber steam is stretched by increasing its speed of conveyance to the dryer.

9. An apparatus for continuous coagulation and drying of rubber latex, comprising a coagulator, a first feeder to pass a stream of latex through the coagulator to form coagulated rubber, a primary heater operable to provide a combination of microwave energy and hot air to coagulated the latex stream passing through the coagulator, a dryer to receive the coagulated rubber stream from the coagulator, a second feeder to pass the coagulated latex stream through the dryer, and a secondary heater to dry the coagulated rubber passing through the dryer.

10. An apparatus as claimed in claim 9,

wherein the primary heater is operable to provide a coagulation temperature in the range from 30°C to 90°C.

11. An apparatus as claimed in claim 9,  
wherein the first feeder is a conveyer belt.

12. An apparatus as claimed in claim 11,  
wherein the conveyor belt is coated with  
polytetrafluoroethylene (PTFE).

13. An apparatus as claimed in claim 9,  
wherein the secondary heater is operable to provide  
a combination of microwave energy and hot air.

14. An apparatus as claimed in any one or claims 9,  
wherein the second feeding means is a conveyor belt.

15. An apparatus as claimed in claim 14 in which the second  
feeding means is a plurality of conveyor belts arranged so  
that the coagulated rubber is passed from one belt to the  
other.

16. An apparatus as claimed in claim 15,  
wherein at least one of the belts is coated  
polytetrafluoroethylene (PTFE).

17. An apparatus as claimed in claim 9, further including a  
stretch unit for the coagulated rubber stream leaving the  
coagulator.

18. An apparatus as claimed in claim 17,

wherein the stretch unit is operable to increase the speed at which the coagulated rubber stream leaves the coagulator.

19. An apparatus as claimed in claim 17,

wherein the stretch unit comprises a conveyor belt configured to receive the coagulated rubber leaving the coagulator and to pass the coagulated rubber to the dryer.

20. An apparatus as claimed in claim 19 in which the belt is coated with polytetrafluoroethylene (PTFE).

21. In a process for the continuous coagulation and drying of rubber latex, the improvement comprising heating a latex stream in a coagulator by a combination of electromagnetic and heated gas.

22. In an apparatus for the continuous coagulation and drying of rubber latex, the improvement comprising heating apparatus first to coagulate a latex stream with a combination of electromagnetic energy and heated gas and second to dry the coagulated latex stream.